

KEYSIGHT TECHNOLOGIES (AGILENT HP)

83731A

The Keysight (Agilent/HP) 83731A is a synthesized signal generator operating in the 1.0 GHz to 20 GHz frequency range, widely utilized for microwave receiver testing, local oscillator substitution, and component characterization.

SPECIFICATIONS

Frequency

Minimum Frequency	1.0 GHz Hz
Maximum Frequency	20.0 GHz Hz
Frequency Resolution	1 kHz

General

Interfaces	GPIB (HP-IB)
Display	Liquid Crystal Display (LCD)
Standard Programming Language	SCPI

Physical

Power Supply	90 to 132 Vac / 198 to 264 Vac, 48 to 440 Hz
Dimensions (W×H×D)	426 mm x 133 mm x 498 mm mm
Weight	16 kg kg

Frequency Specifications

Frequency Range	1.0 GHz to 20 GHz
Frequency Resolution (Standard)	1 kHz
External Reference Input Frequency	10 MHz

Output Power Specifications

Minimum Leveled Max Output Power	10 dBm
Level Resolution	0.01 dB
Output Impedance	50 Ohm

Spectral Purity

Harmonics	-55 dBc
Non-Harmonic Spurious	-60 dBc

Connectivity and Interfaces

GPIB Interface	HP-IB (IEEE-488.2)
RF Output Connector	Precision 3.5 mm male

Physical Characteristics

Height	133 mm
Width	426 mm
Depth	498 mm

Power and Environmental

AC Input Voltage Range	90 to 132 Vac / 198 to 264 Vac
AC Input Frequency Range	48 to 440 Hz

Available Options and Accessories

Option 1E1	Adds 110 dB Step Attenuator
Option 1E8	1 Hz Frequency Resolution

Environmental

Operating Temperature Range	0 to +55 °C
Storage Temperature Range	-40 to +75 °C
Maximum Operating Altitude	4,570 m (15,000 ft)
Maximum Non-Operating Altitude	15,240 m (50,000 ft)
Operating Humidity Range	Up to 95% relative humidity at 40 °C

Electrical & Power

Maximum Power Consumption	400 VA
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Inputs & Outputs

Sweep Output Voltage	0 V to 10 V (nominal)
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Options

Option 1E5	High Stability Timebase (adds ovenized crystal oscillator)
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TECHNOLOGY

Synthesized Microwave Signal Generation

APPLICATIONS

Receiver testing, radar testing, local oscillator substitution, and microwave component characterization

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.